

The opinion in support of the decision being entered today was *not* written for publication and is *not* binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte SCOTT A. RAWSON

Appeal 2006-3169
Application 09/829,883
Technology Center 3600

Decided: March 29, 2007

Before ANITA PELLMAN GROSS, JENNIFER D. BAHR, and
LINDA E. HORNER, *Administrative Patent Judges*.

BAHR, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Scott A. Rawson (Appellant) appeals under 35 U.S.C. § 134 from the Examiner's decision rejecting claims 1, 2, 10-13, 17, 18, 20, and 21, the only claims pending in the Application. We have jurisdiction over this appeal under 35 U.S.C. § 6.

Appellant invented a vibration isolation member that provides substantially equal dynamic stiffness in radial and axial dimensions and includes an outer member, an inner member, and a resilient member disposed between and bonded to the inner and outer members (Specification [0001] and [0022]). The dimensions of the peripheries of the inner and outer members provide for an interference between the inner and outer members to afford a fail-safe feature in the event the resilient member fails (Specification [0001], [0007], and [0021]).

Independent claim 1 is illustrative of the invention and reads as follows:

1. A single resilient member iso-elastic vibration isolation member comprising:
 - (a) an inner member for attachment to a suspended body, said inner member comprising a frustoconical seat having an angled surface and an outer periphery diameter D' ;
 - (b) an outer member for attachment to a planar support structure, said outer member comprising a planar base defining a base plane and a shroud that extends away from the planar base and said base plane, the shroud extending to overlay the inner member outer periphery diameter D' , said shroud having an angled segment with an inner surface, said angled segment inner surface oriented substantially parallel to said angled surface of said frustoconical seat, said shroud defining an inner periphery diameter D'' , said inner periphery diameter D'' less than said outer periphery diameter D' , said inner member not extending through said outer member base plane; and
 - (c) consisting essentially of a single sole resilient member constrained between the shroud angled segment inner surface and the inner

member frustoconical seat angled surface, said single resilient member having a cross section, said single resilient member bonded to said shroud angled segment inner surface and said inner member frustoconical seat angled surface, wherein said single resilient member bonded to said shroud angled segment inner surface and said inner member frustoconical seat angled surface provides for iso-elastic displacement of said inner member in a radial direction and in an axial direction from said outer member with said frustoconical seat outer periphery diameter D' providing an interference with said shroud inner periphery diameter D'' to prevent a separation of the vibration isolation member in the event of a failure of said single resilient member, wherein said single sole resilient member is the sole resilient member providing for isolation between the suspended body and the support structure with said iso-elastic vibration isolation member providing a substantially equal dynamic stiffness in the radial direction and in the axial direction for an applied load between the suspended body and the support structure.

The Examiner relies upon the following as evidence of unpatentability:

Saurer	US 2,538,658	Jan. 16, 1951
Nowak	US 5,116,030	May 26, 1992

Appellant seeks review of the Examiner's rejection of claims 1, 2, 10-13, 17, 18, 20, and 21 under 35 U.S.C. § 103(a) as unpatentable over Saurer in view of Nowak. The Examiner has withdrawn the rejection based on Nowak in view of Kubaugh set forth in the Final Rejection (Answer 3).

The Examiner provides reasoning in support of the rejection in the Answer (mailed September 22, 2005). Appellant presents opposing arguments in the Brief (filed July 11, 2005) and Reply Brief (filed November 25, 2005).

THE ISSUE

The dispositive issue in this appeal is whether Saurer's body 3 of resilient material is bonded to the inner surface of the flaring portion (the angled portion between the cylindrical portion and flange 5 - Saurer, col. 2, ll. 30-40; col. 3, l. 27) of housing 1 so as to meet the "said single resilient member bonded to said shroud angled segment inner surface" limitation of independent claims 1 and 12. The Examiner contends that Saurer's body 3 of resilient material is initially bonded to the housing 1 in this region until a certain loading force is applied (Answer 5). Appellant contends that the body 3 is not initially bonded to the flaring portion of housing 1 (Reply Br. 4).

FINDINGS OF FACT

1. Saurer discloses a resilient mounting including a housing 1, a member 2 disposed within housing 1, and a body 3 of resilient material "interposed between and bonded to said housing and axially disposed member" (Saurer, col. 2, ll. 23-29).
2. Saurer's housing 1 includes a generally cylindrical portion, an inwardly directed flange 5 at the upper end of the housing, and an inwardly flaring portion joining the generally cylindrical portion and flange 5 (Saurer, col. 2, ll. 30-40; col. 3, l. 27).

3. Saurer's body 3 is not bonded to the housing 1 along the entire extent of their normally (i.e., in the unloaded condition) contacting surfaces. Specifically, there is no bond between body 3 and housing 1 in an annular area of the body 3 lying directly beneath flange 5 of housing 1 and extending outwardly to the point where the flaring portion of the housing merges with the cylindrical portion (Saurer, col. 3, ll. 19-30). Upon axial movement of member 2 in a downward direction, as viewed in Figs. 2 and 3, and resultant distortion of body 3, the unbonded area of body 3 will draw away from the adjacent inner surface of the housing to provide a cavity between body 3 and flange 5 (col. 3, ll. 30-38). The cavity permits air, or other compressible fluid, to be confined and expelled through a breather opening 10 to provide additional resilience or serve as a means for damping (col. 1, ll. 21-26; col. 3, ll. 38-39).
4. Saurer ensures that there will be no bond between body 3 and the inner surface of housing 1 in the area along the flaring portion of housing 1 by coating the inner surface of the flaring portion with a flux coating 12 of "anti-stick" composition for preventing adhesion of rubber to metal (Saurer, col. 4, ll. 4-9).
5. While Saurer refers to the annular area of body 3 "which normally contacts with the portion of the inner surface of the housing to which flux coating 12 was applied" (Saurer, col. 4, ll. 34-37), Saurer does not describe that area of body 3 as being bonded to the inner surface of housing 1. On the contrary, according to Saurer, that area of body 3 "will be free to draw away from such surface" (Saurer, col. 4, ll. 37-38) upon application of a load.

6. The Examiner did not rely on Nowak for any teaching or suggestion to provide a bond between a resilient member and a shroud angled segment inner surface.

ANALYSIS

The Examiner erred in finding that body 3 is initially bonded to the portion of the inner surface of housing 1 to which the “anti-stick” flux coating is applied. Saurer clearly teaches that body 3 is not bonded to the inner surface of housing 1 in the area that normally contacts the coated portion of housing 1; rather, body 3 is free to draw away from housing 1 to form an air cavity upon application of a load (Findings of Fact 3-5). Saurer’s body 3 is not bonded to any part of the flaring portion of housing 1 (Finding of Fact 3) and therefore does not satisfy the “said single resilient member bonded to said shroud angled segment inner surface” limitation of independent claims 1 and 12. The Examiner’s rejection of independent claims 1 and 12, and claims 2, 10, 11, 13, 17, 18, 20, and 21 depending from claims 1 and 12, is grounded in part on the Examiner’s erroneous finding that Saurer’s body 3 is initially bonded to the “anti-stick” composition coated flaring portion of housing 1 and thus cannot be sustained.

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ORDER

The decision of the Examiner to reject claims 1, 2, 10-13, 17, 18, 20,
and 21 is reversed.

REVERSED

jlb

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